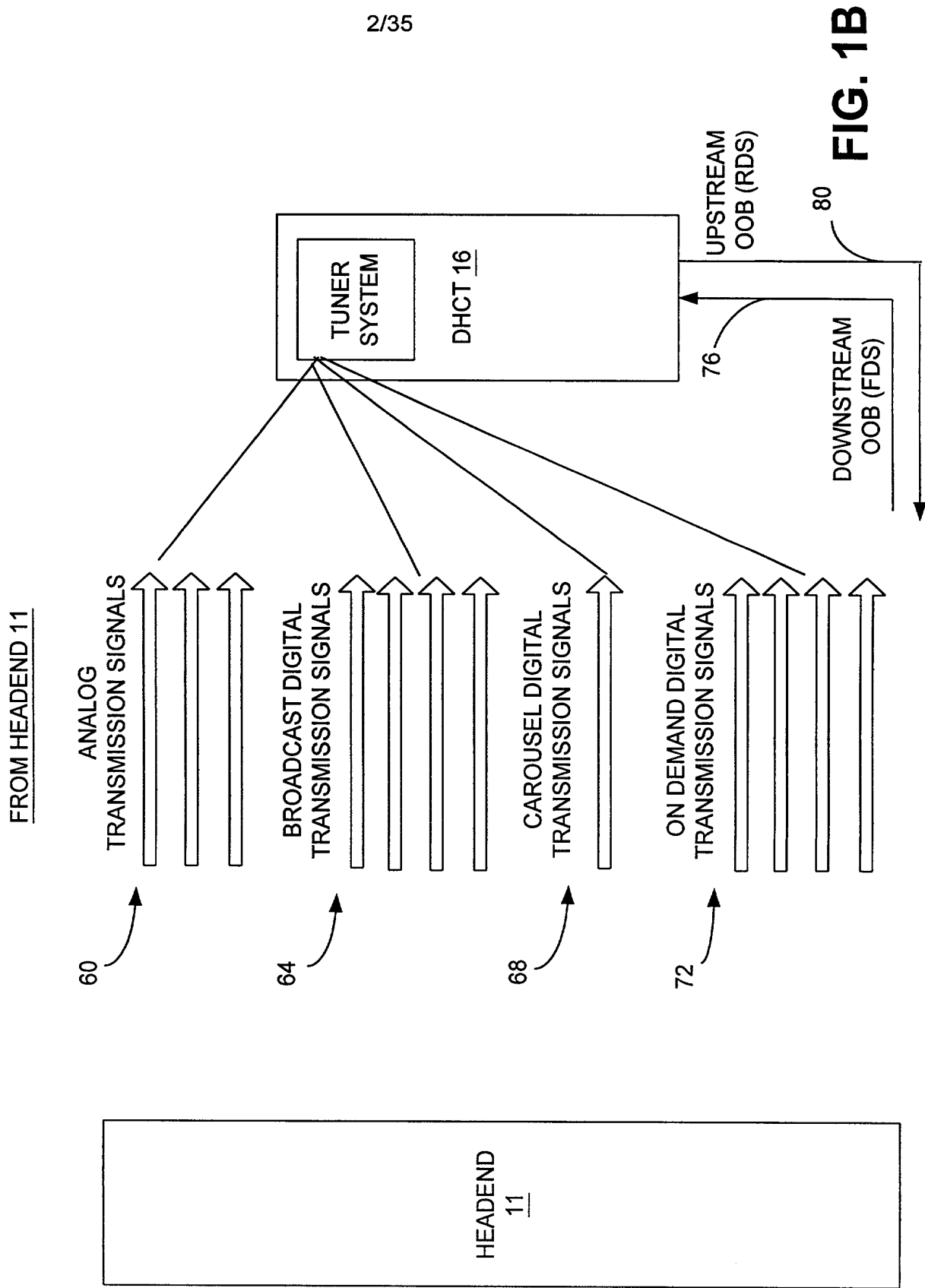


FIG. 1A





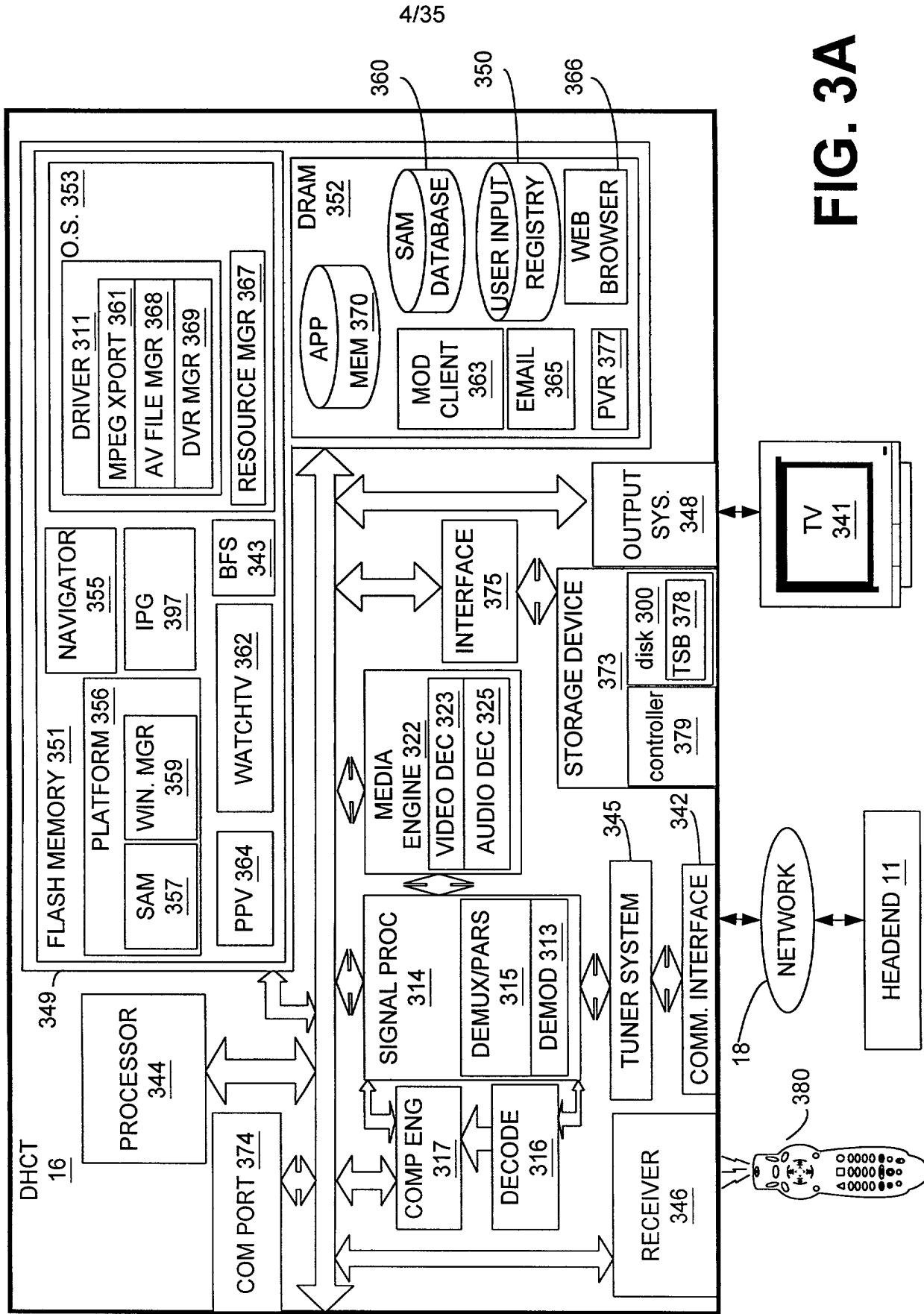
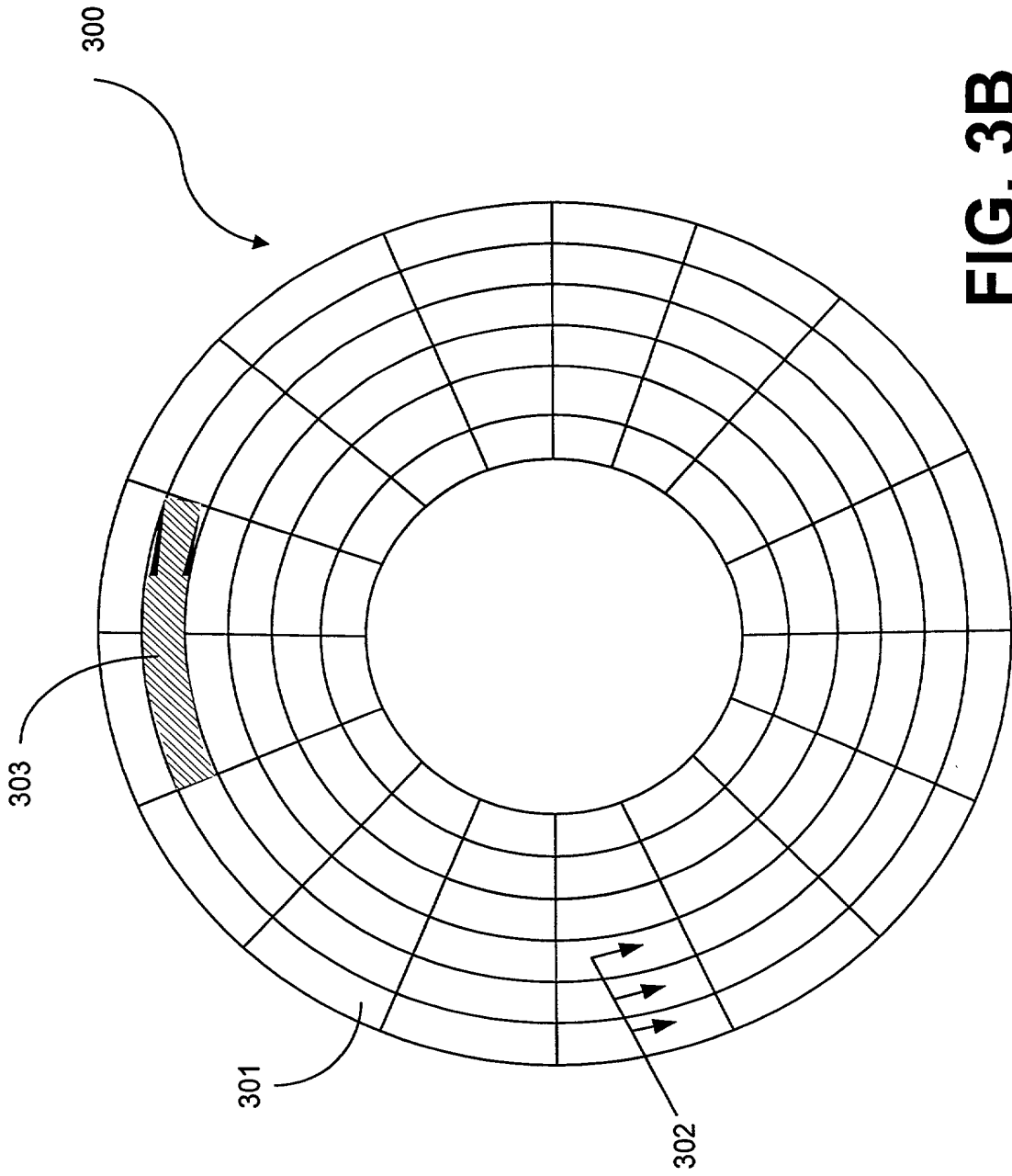


FIG. 3A



**FIG. 3B**

```

struct ProgramInfo
{
    410 char *filename;
    415 bool recorded; /* 0 = do not permanently record */
    420 int handle; /* file handle, 0 = file closed */
    425 char *guideData; /* program description, title, times */
    430 time startTime; /* actual record start time */
    435 time stopTime; /* actual record stop time */
    437 int startNPT; /* start NPT for the media content instance */
    440 int stopNPT; /* stop NPT for the media content instance */
    445 int tsbHandle /* handle for associated TSB */
    450 int tsbStartNPT; /* start NPT for associated TSB */
    455 int tsbStopNPT; /* stop NPT for associated TSB */
    /* additional data */
};

```

FIG. 4A

```

struct TSBprogramInfo
{
    460  int    handle;    /* file handle, 0 = file closed */
    465  List  programs; /* list of ProgramInfo */
    470  int    startNPT; /* start NPT for the TSB */
    475  int    recNPT;  /* current record NPT for the TSB */
        /* additional data */
};

```

FIG. 4B

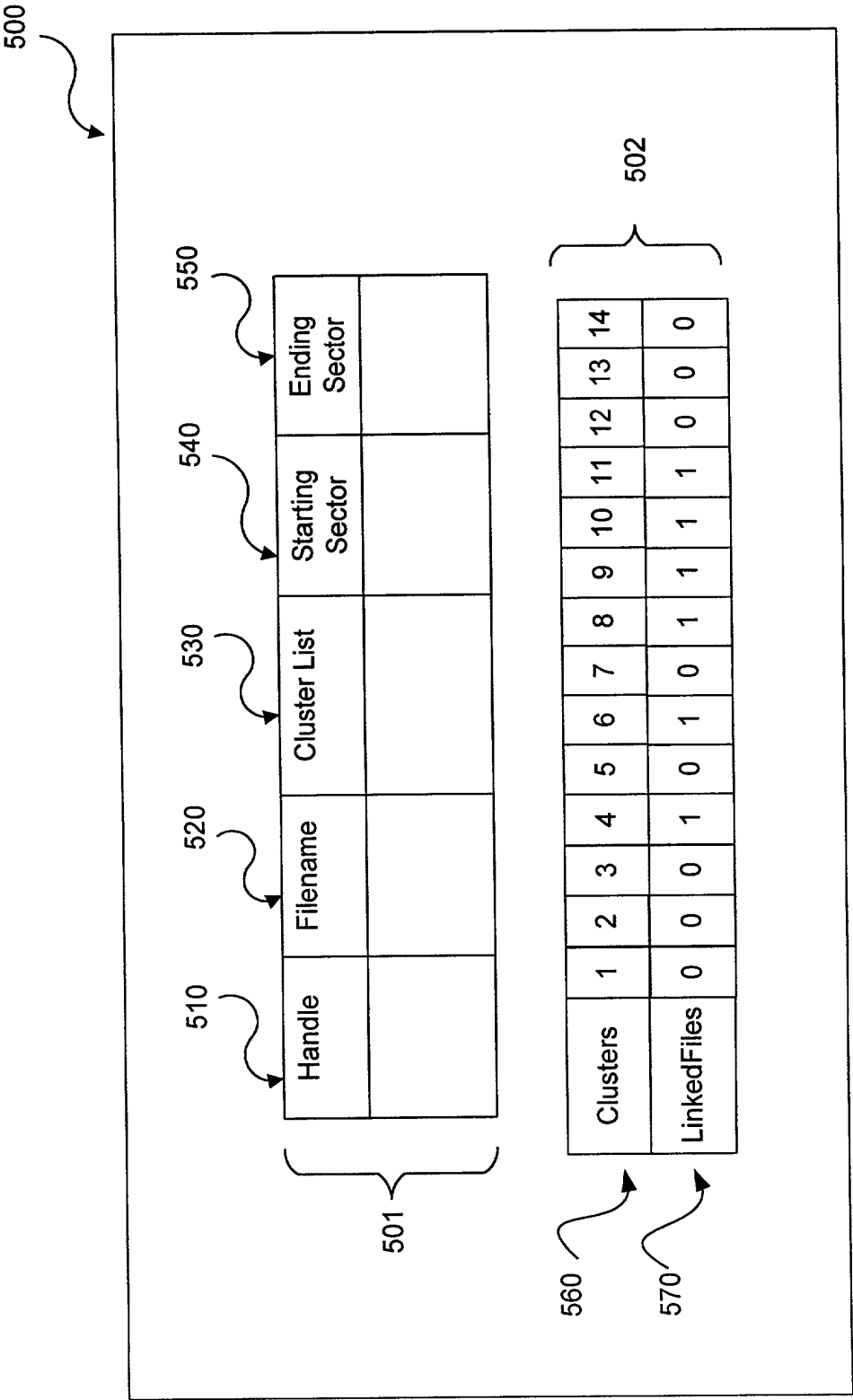


FIG. 5A



500

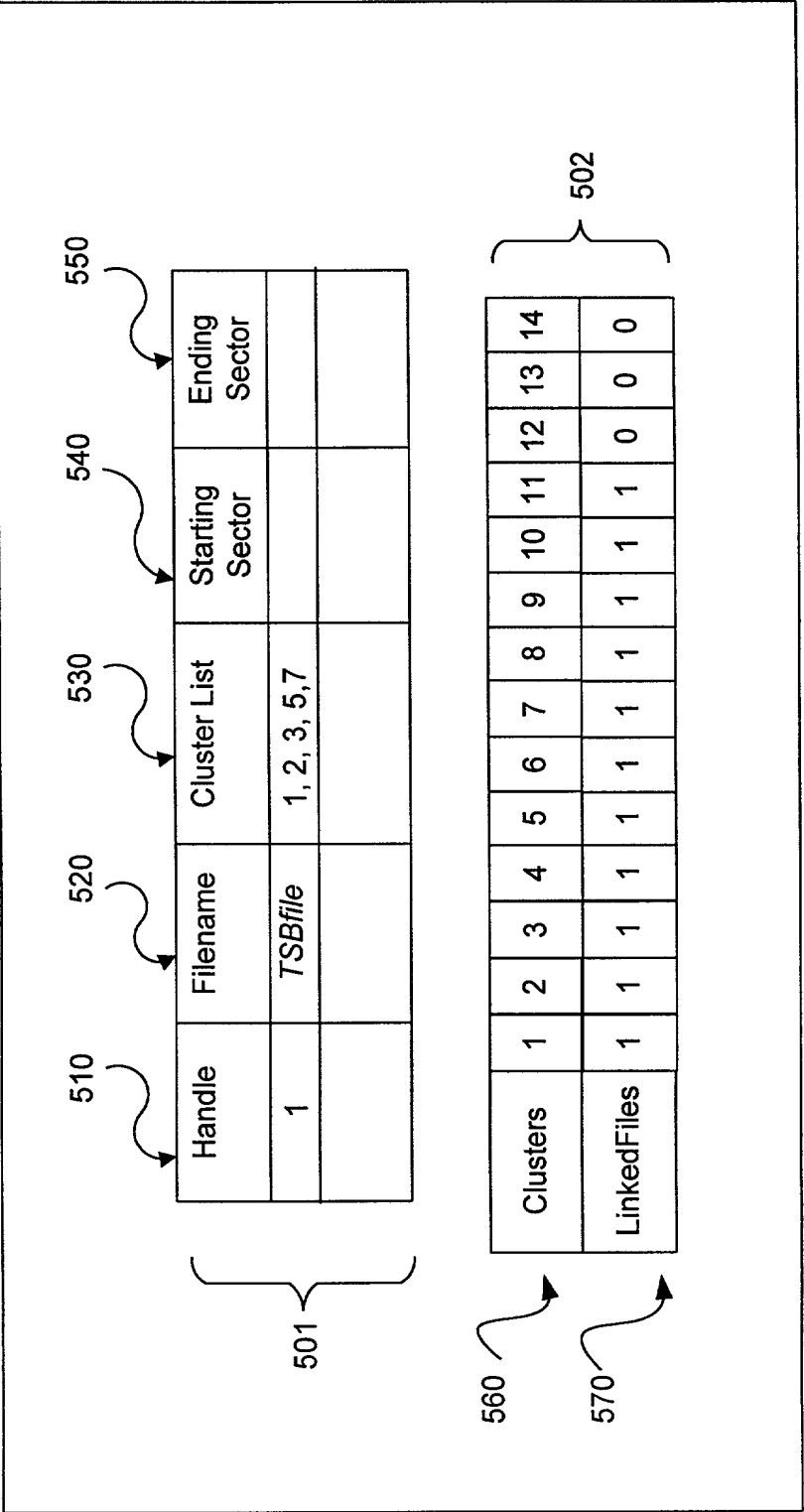


FIG. 5B

500

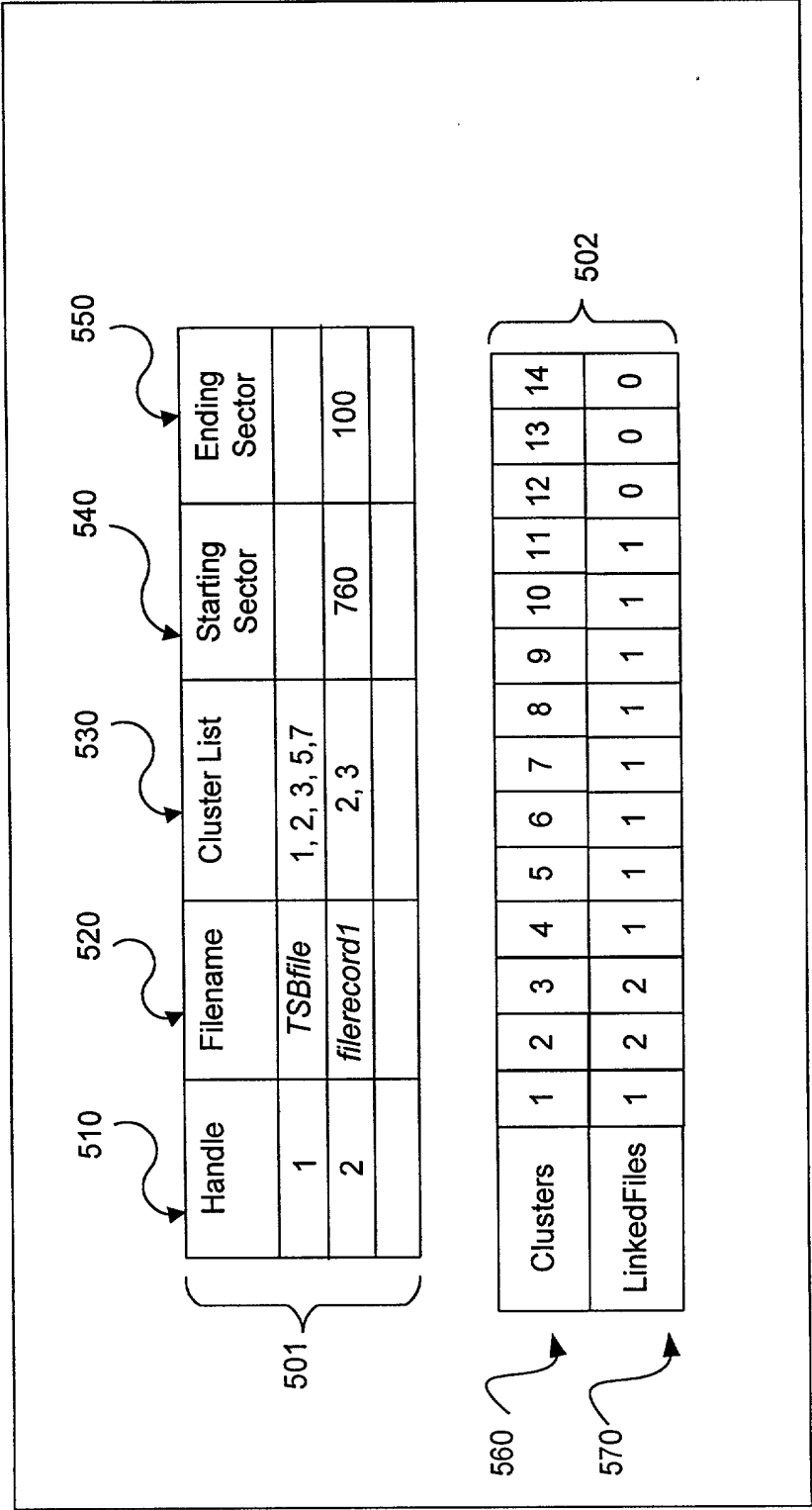


FIG. 5C

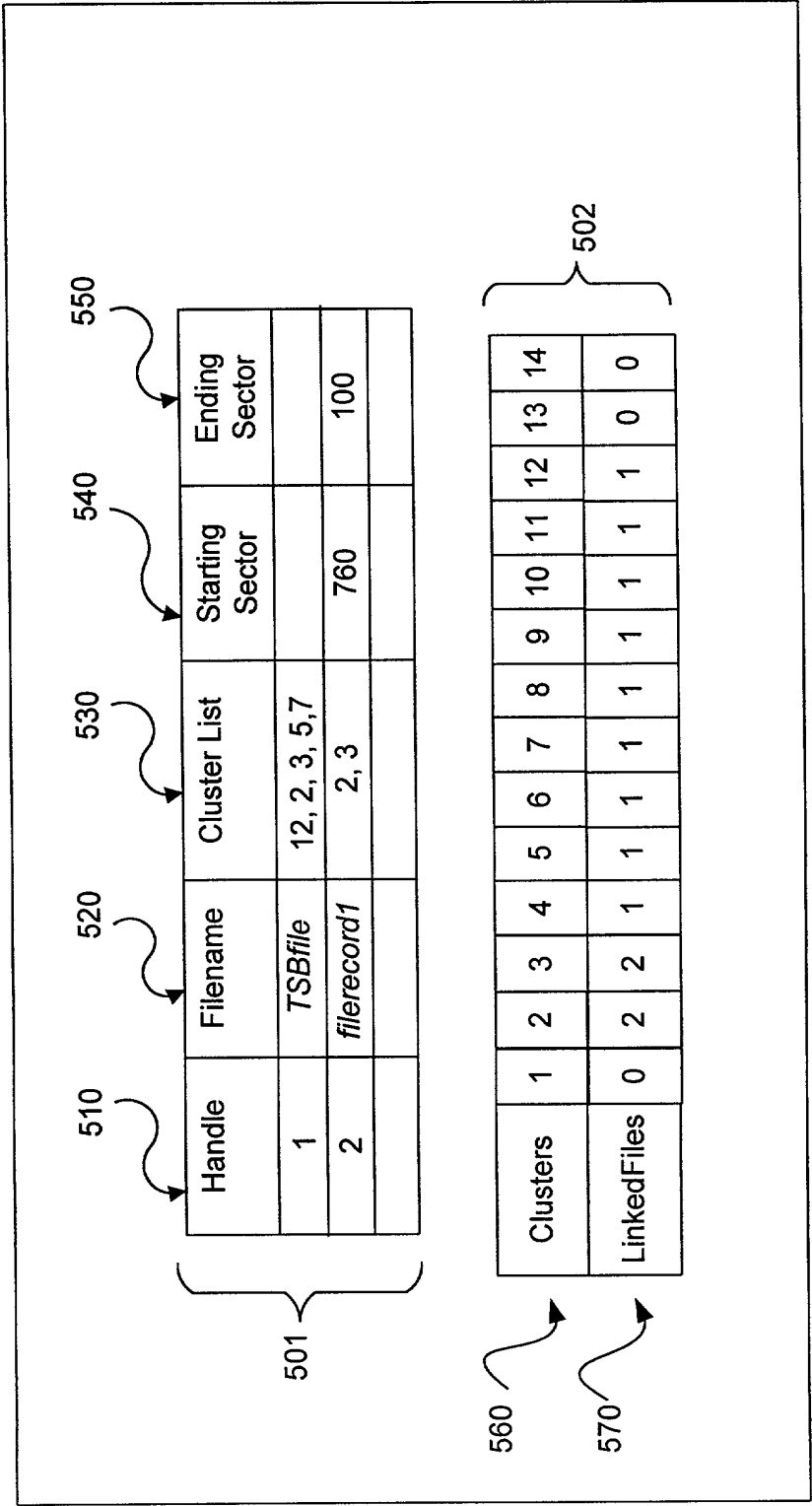


FIG. 5D

500

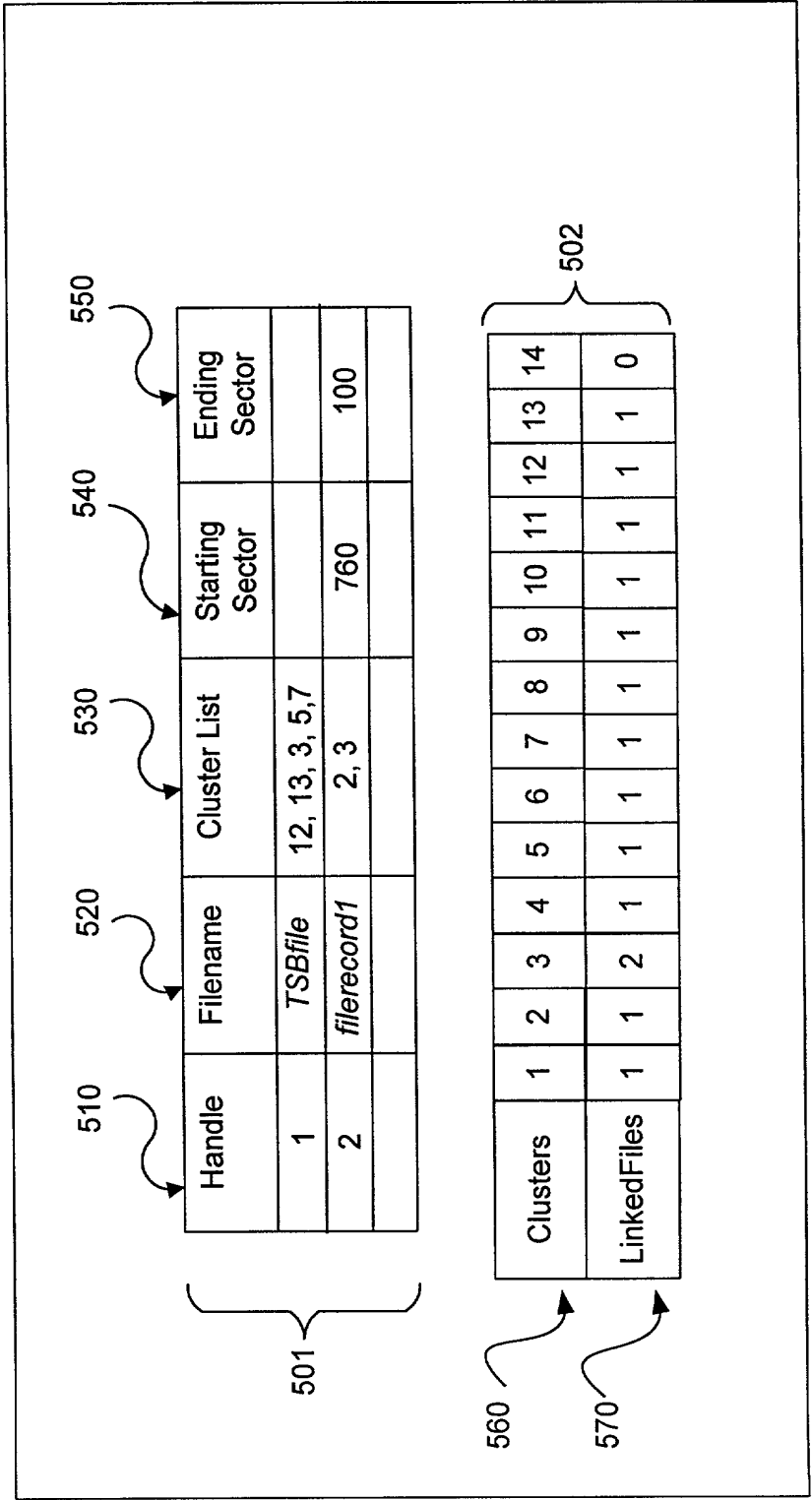


FIG. 5E

500

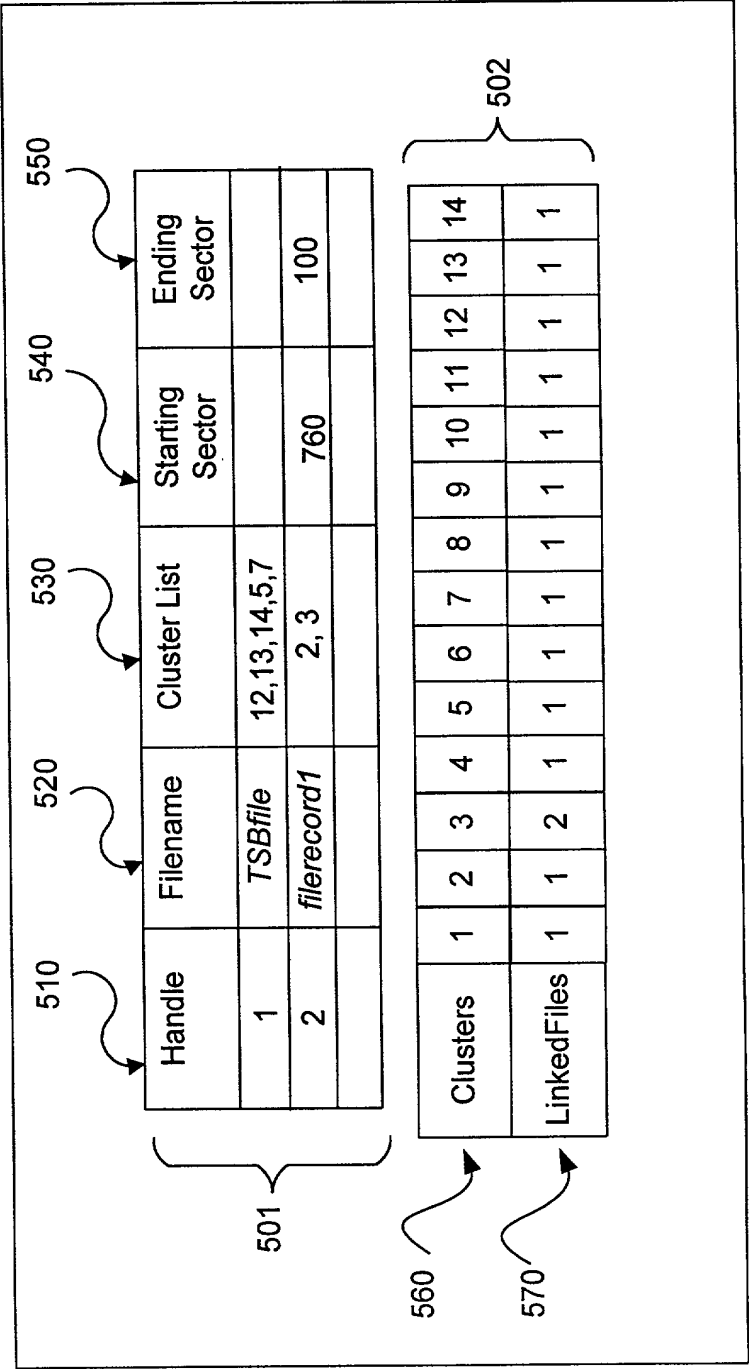


FIG. 5F

```

struct clusterInfo    /* cluster entry data in FAT */
{
    short numLinkedFiles;    /* number of linked files */
    /* additional data */
}
    
```

**FIG. 6A**

```

struct Re. . . . .
. . . . .
. . . . .
. . . . .
. . . . .
. . . . .
    
```

**FIG. 6B**

```

struct TSBfileInfo
{
    ClusterList clusterList;    /* ordered list of clusters
    /* additional data */
}
    
```

**FIG. 6C**

```
void dvrn_TimeShift (ui32 *handle, TV_ID tvId)
```

**FIG. 7A**

```
dvrn_Record (ui32 *handle, TV_ID tvId, char *filename, eDvr_Quality quality)
```

**FIG. 7B**

```
dvrn_TimeShiftRecord (ui32 *handle, ui32 *tsbHandle, char *filename, i32 startNpt, i32 stopNpt)
```

**FIG. 7C**

820	↑	1	2	3	7	8	9	10	12	16	17
830	↑	1	1	1	1	1	1	1	1	1	1
840	↑	Pgm 1			Pgm 2			Pgm 3			
810	↑	TSBar									
		L									

850

FIG. 8A



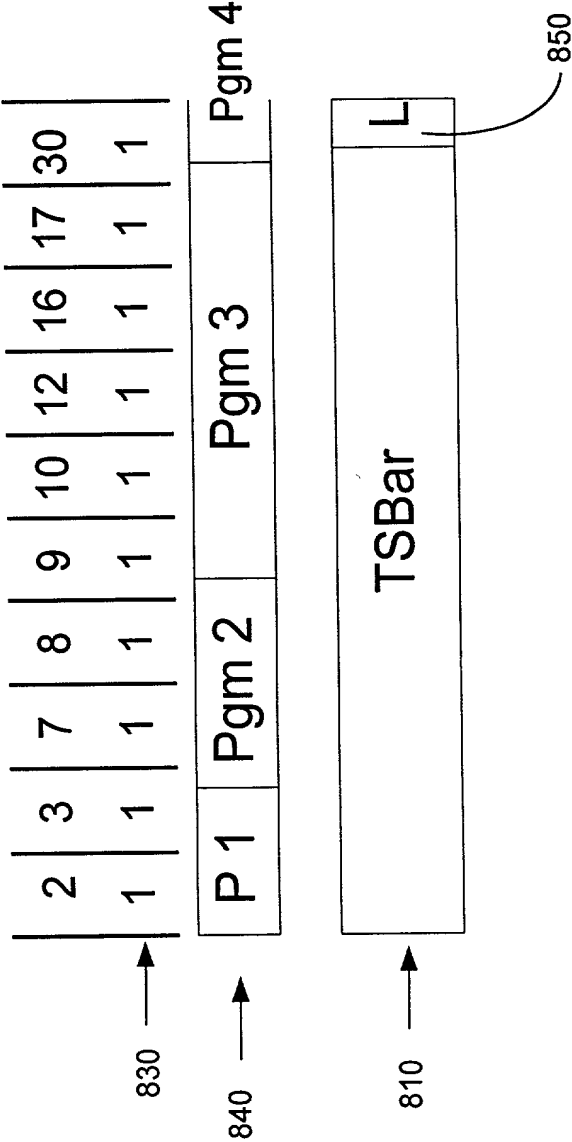


FIG. 8B

	3	7	8	9	10	12	16	17	30	31
P1	1	1	1	1	1	1	1	1	1	1
	Pgm 2			Pgm 3			Pgm 4			
	TSBar									
	L									

FIG. 8C

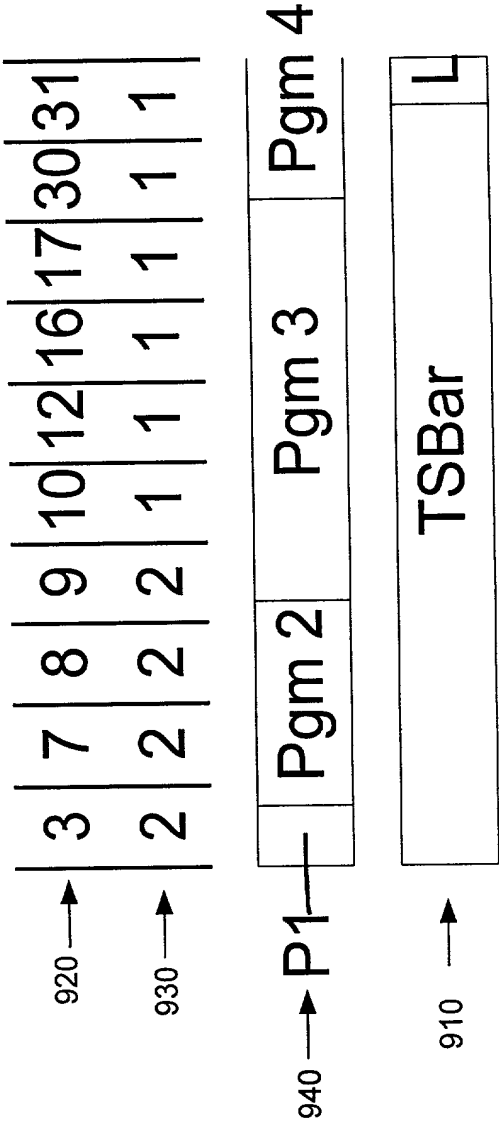


FIG. 9A

3	7	8	9	10	12	16	17	30	31	34
1	2	2	2	1	1	1	1	1	1	1

Pgm 2	Pgm 3	Pgm 4
-------	-------	-------

TSBar	L
-------	---

FIG. 9B

**FIG. 9C**

3	7	8	9	10	12	16	17	30	31	34	35	36
1	1	1	2	1	1	1	1	1	1	1	1	1
Pgm 2				Pgm 3				Pgm 4				
TSBar												
L												

FIG. 9D

3	7	8	9	10	12	16	17	30	31	34	35	36	37
1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pgm 2				Pgm 3				Pgm 4				Pgm 5	
TSBar													
L													

FIG. 9E

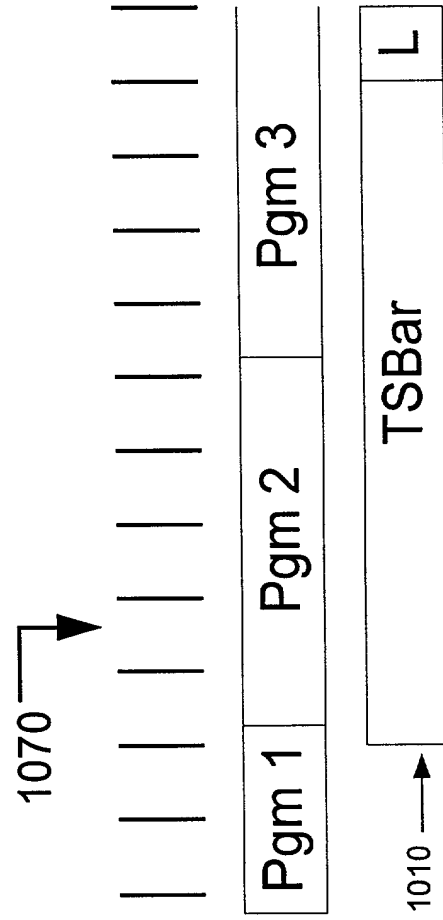


FIG. 10A



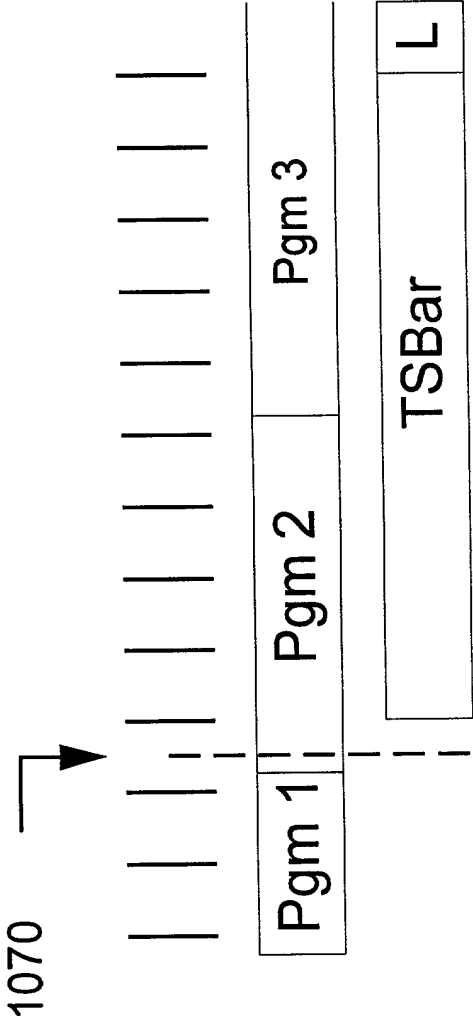


FIG. 10B

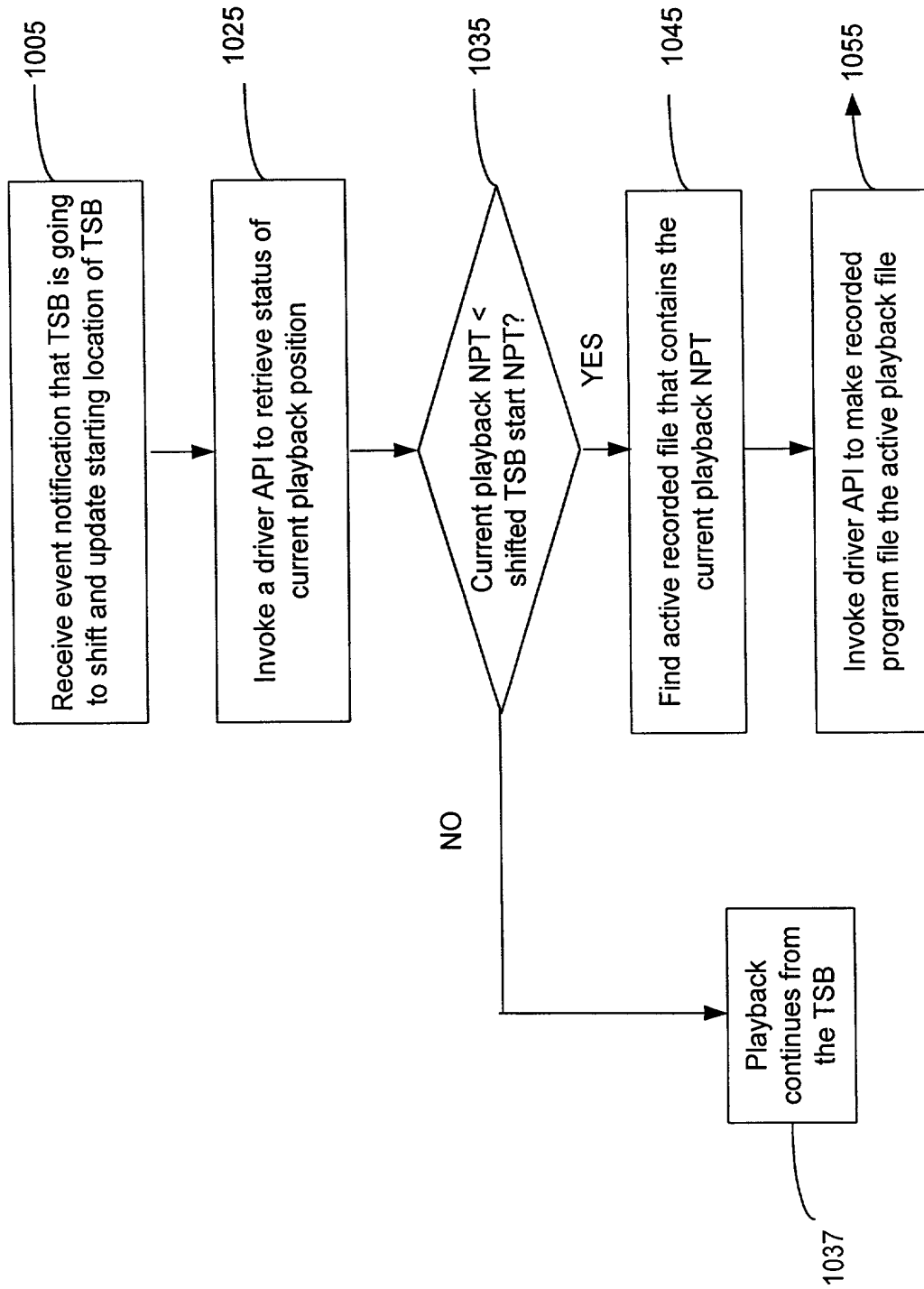


FIG. 10C

dvrn\_Status (ui32 handle, \*i32 npt, sDvr\_Scale \*scale, ui32 \*mode)

**FIG. 10D**

void dvrn ConvertPlay (ui32 tsbHandle, ui32 handle)

**FIG. 10E**

3	7	8	9	10	12	16	17	30	31	34	35	36
1	1	1	3	2	2	2	2	2	1	1	1	1

Pgm 2	Pgm 3	Pgm 4
-------	-------	-------

TSBar	L
-------	---

FIG. 11A

3	7	8	9	10	12	16	17	30	31	34	35	36	37	
1	1	1	2	2	2	2	2	1	1	1	1	1	1	
Pgm 2			Pgm 3					Pgm 4			Pgm 5			
TSBar														L

FIG. 11B

3	7	8	9	10	12	16	17	30	31	34	35	36	37	38
1	1	1	2	1	2	2	2	1	1	1	1	1	1	1
Pgm 2				Pgm 3				Pgm 4				Pgm 5		
TSBar														
L														

FIG. 11C

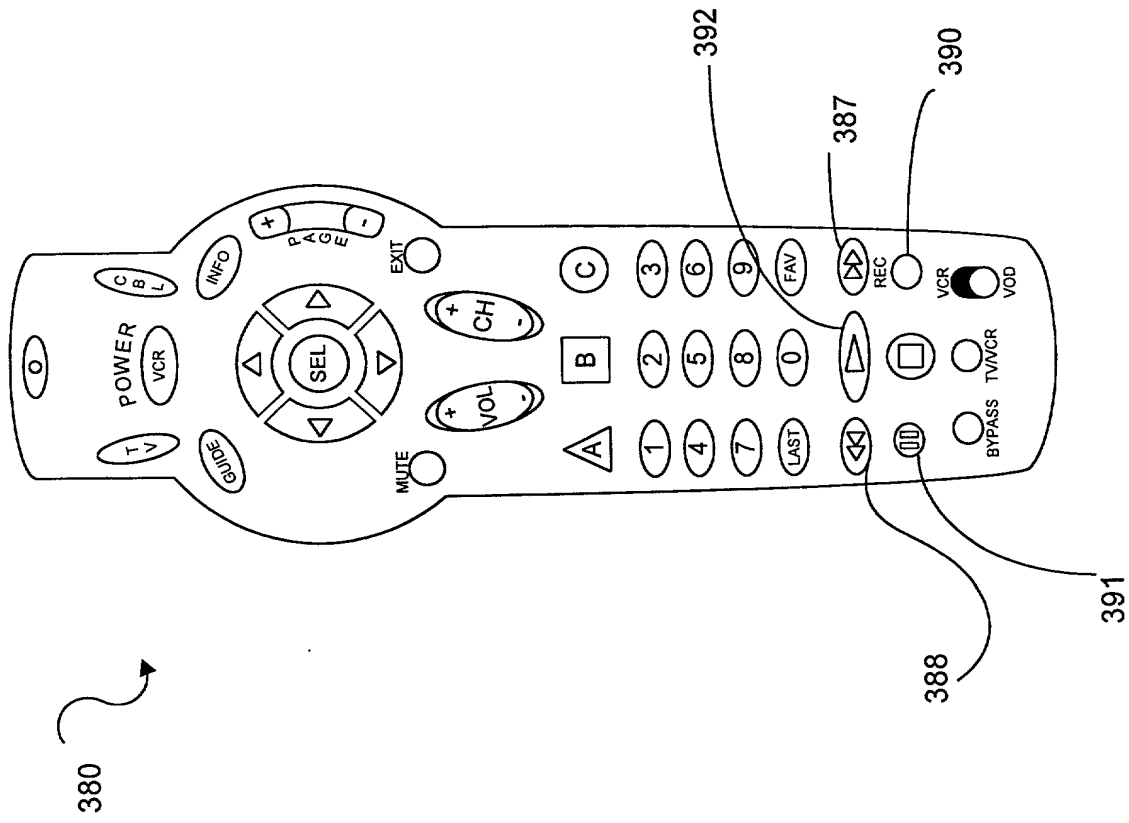


FIG. 12

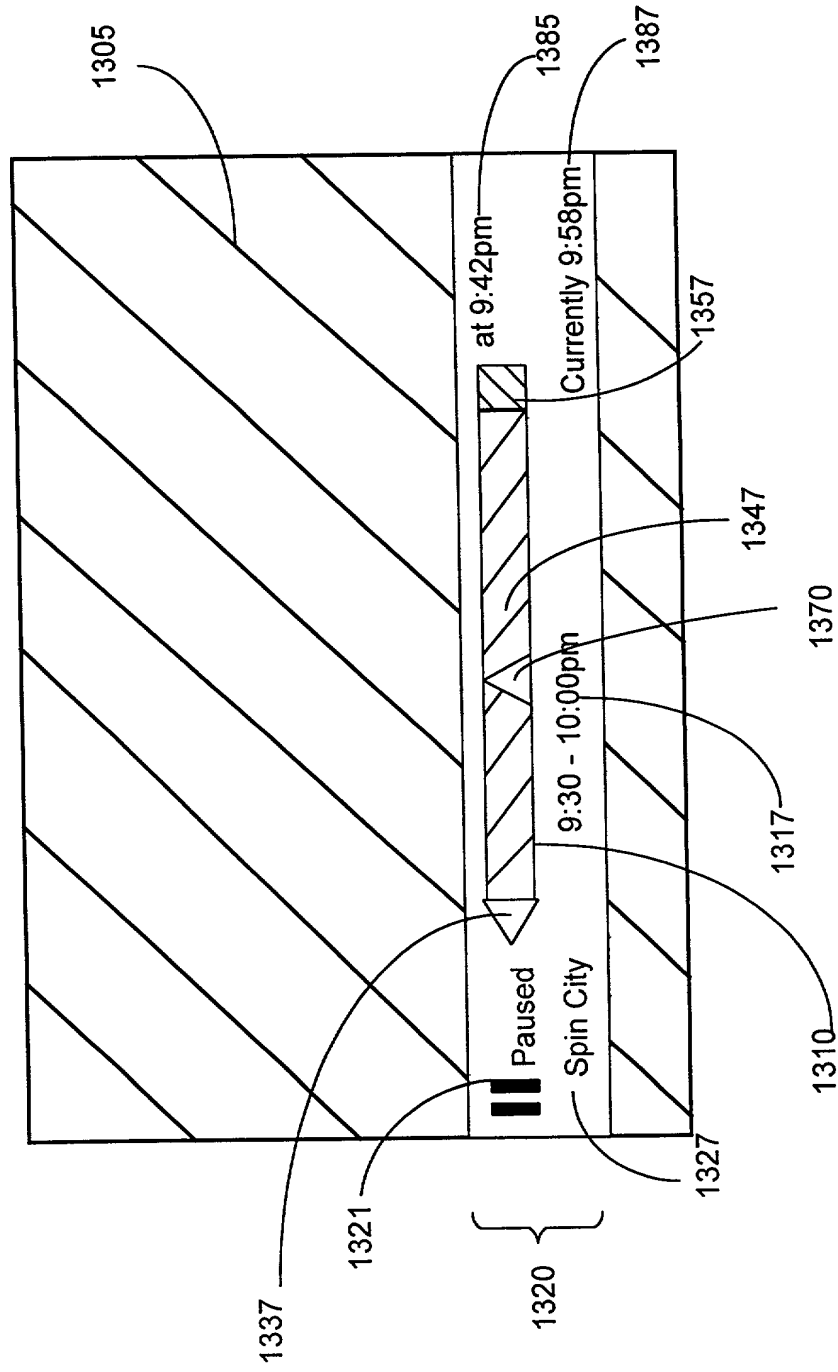


FIG. 13A



FIG. 13A

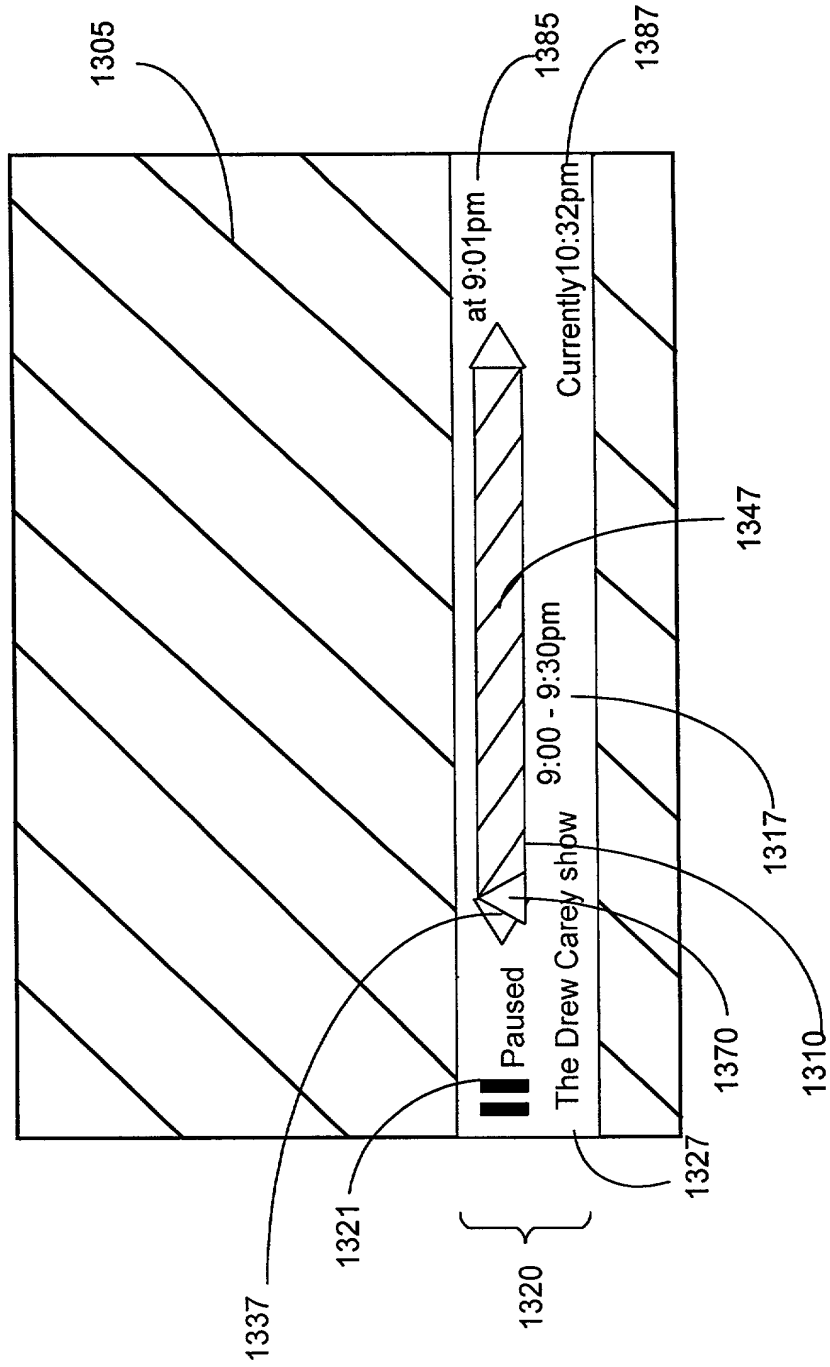


FIG. 13B

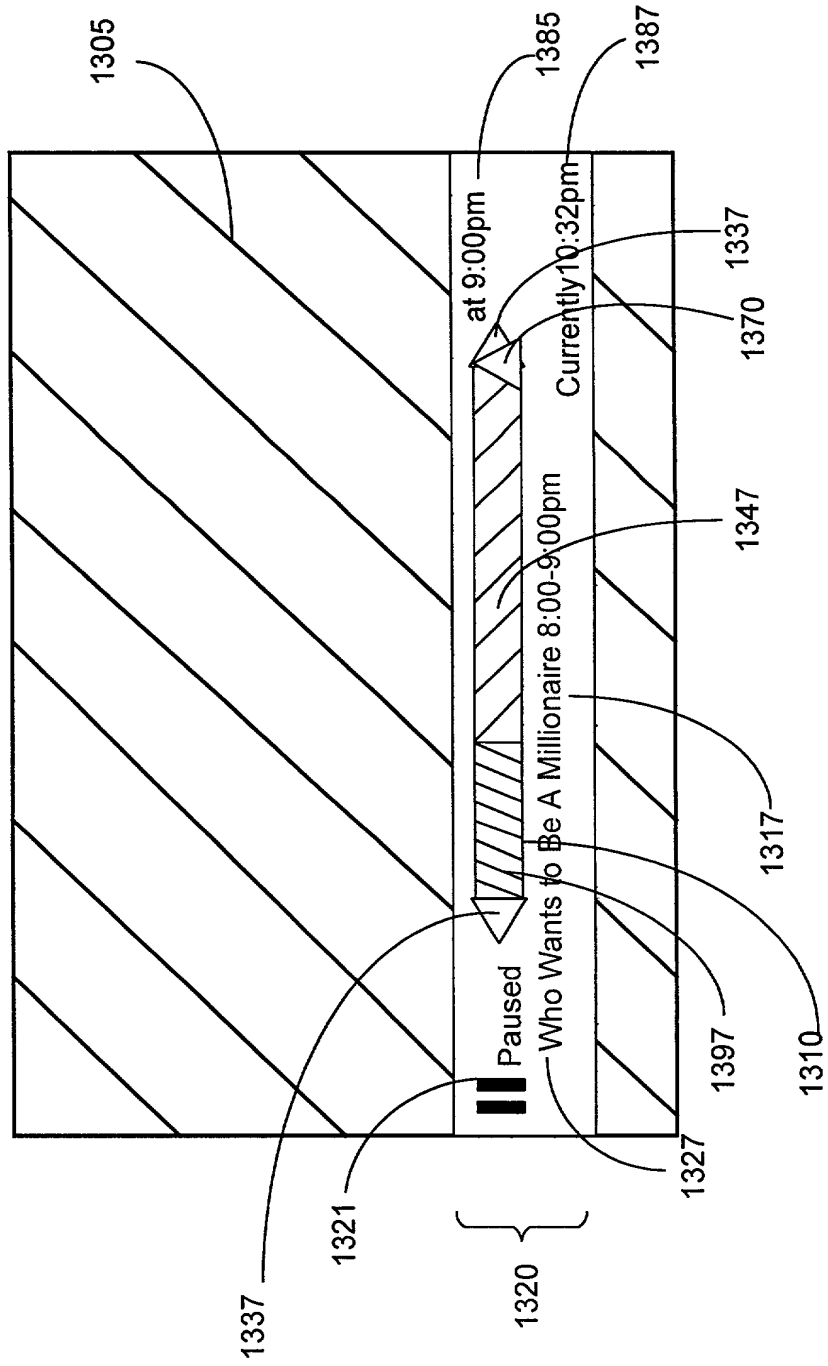


FIG. 13C

1400

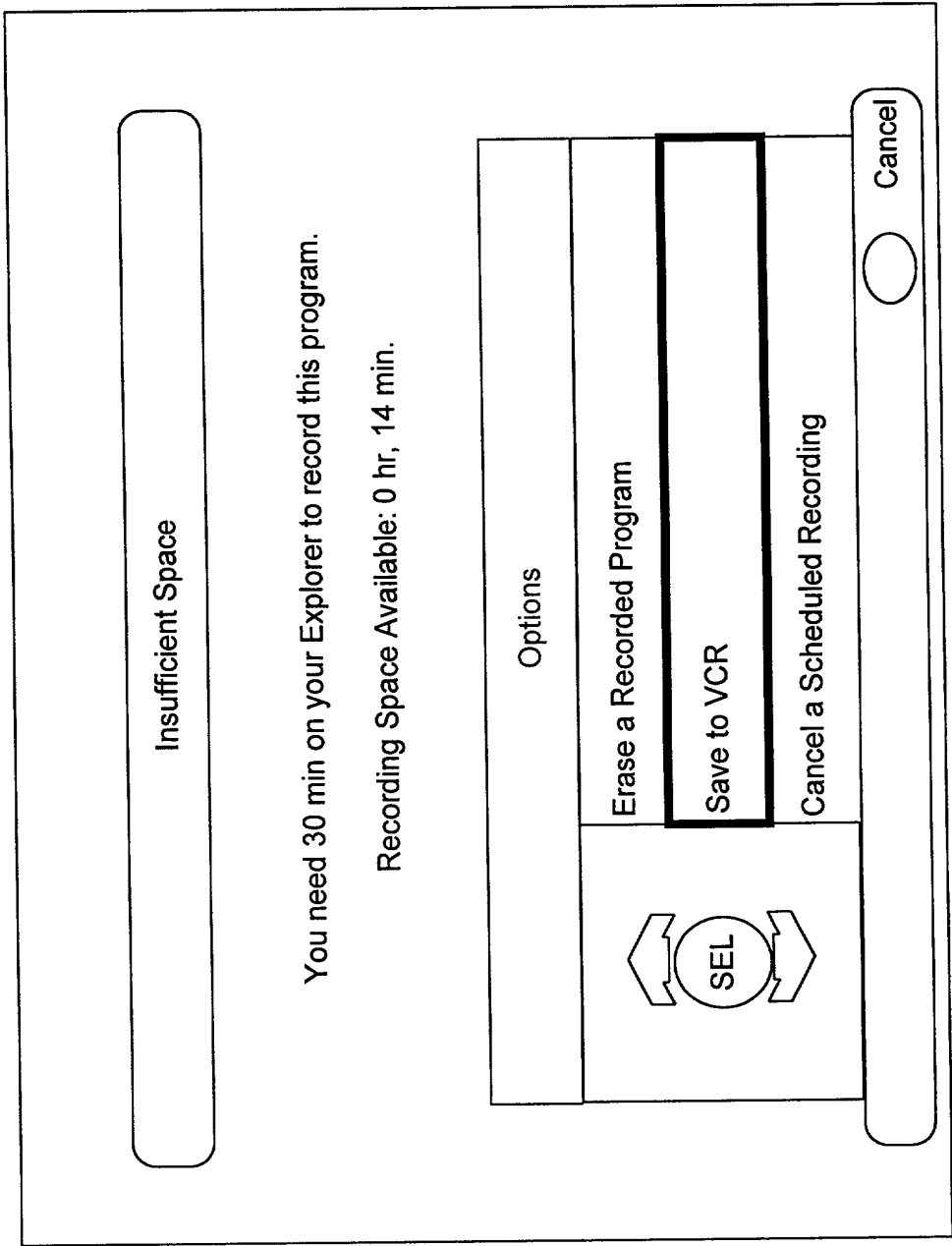


FIG. 14